ENVIRONMENTAL CHEMISTS

Date of Report: 10/04/01 Date Received: 10/01/01

Project: Water Test PO# M66807

Date Extracted: 10/01/01 Date Analyzed: 10/01/01

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Results Reported as mg/L (ppm)

	Sample ID	C	hromium	Copper	Nickel	Zinc
	Laboratory ID	$\mathbf{\tilde{Y}}$		<u> </u>		Parki Mili
1	Na dan Kili				kratika 177	
	M66807		0.11	1.7	0.54	< 0.05
	110007-01	그러는 말라		Tariffici	in dik di	
	N (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		-0.05	-0.05	-0.05	-0 0F
	Method Blank		< 0.05	< 0.05	< 0.05	< 0.05

ENVIRONMENTAL CHEMISTS

Date of Report: 10/04/01 Date Received: 10/01/01

Project: Water Test PO# M66807

QUALITY ASSURANCE RESULTS FROM TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 109115-01 (Duplicate)

						Relati	ve		
	AND COLOR	Reporting		Sample	Duplicat	te Perce	nt A	Acceptan	ice
	Analyte	Units	el per pers	Result	Result	Differe	nce	Criteria	<u>a</u>
Ü	Chromium	mg/L (ppm)		0.52	0.52	0		0-20	1,4,50
	Copper	mg/L (ppm)		0.46	0.47	2		0-20	1
	Nickel	mg/L (ppm)	No.	0.50	0.49	2		0-20	
	Zinc	mg/L (ppm)		< 0.05	< 0.05	nm		0-20	

Laboratory Code: 109115-01 (Matrix Spike)

		Reporting	Spike	Sample	% Recov	ery % Recov	ery Accepta	nce RPD	z II s
	Analyte	Units	Level	Result	MS	MSD	Criter	ia (Limit 20))
	Chromium	mg/L (ppm)	2	0.52	93	92	80-120	0 1	7.
	Copper	mg/L (ppm)	2	0.46	90	90	80-120	0 0	18
Eq.	Nickel	mg/L (ppm)	4	0.50	94	93	80-120	0 1	
	Zinc	mg/L (ppm)	2	< 0.05	100	101	80-120	1	

Laboratory Code: Laboratory Control Sample

	Reporting	Spike %	6 Recove	ry % R	Recovery	Acceptance	e RPI)
Analyte	Units	Level	LCS	I	CSD	Criteria	(Limit	20)
Chromium	mg/L (ppm)	2	100	See See See	98	80-120	2	
Copper	mg/L (ppm)	2	101		100	80-120	1	
Nickel	mg/L (ppm)	4	103		103	80-120	0	
Zinc	mg/L (ppm)	2	103		102	80-120	1.	

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

110007				SAMPLE	CHAIN C)F C	US	гог	Y		V	NE		10	10/	1 01	AI
Send Report To Seal Company Askan (Address (62) 5.	A: Copper April	Thompse reons	is) Tes	PROJE	LERS (signo ECT NAME/	NO.	***************************************			n	PO			T Stan RUS	dard (H	ROUNI 2 Weeks	
City, State, ZIP Sept Phone # 206 - 382-853	re Fax	ns 5 # 206-	8134 782-43	REMA	KUSh	(1	7	`	ve Vesv				Disp Retu	ose af rn sar	LE DISF ter 30 da nples ith instr	ays
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Typ	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	SVOCs by 8270 N		SES RE (2 /w to the	QUES'	red]	Notes
m 66807	01	19/1/01	1:00	Aco	(
,																	
Friedman & Bruya, Inc. 3012 16th Avenue West / Seattle, WA 98119-2029 Ph. (206) 285-8282	Reinqui Received Refinqui	by:	IATURE .		GENSOD EKIC	RINT	TA VA	ME G	ا الا			COMI ACA BEN	ر 	7		DATE	TIME 1:76 Pa 1:45 pm
Fax (206) 283-5044 FORMS\CHECKIN\COC.DOC	Received	l by:															

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Charlene Morrow, M.S. Yelena Aravkina, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S.

3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

October 4, 2001

DUPLICATE COPY

INVOICE #01ACU1004-2

Accounts Payable Alaskan Copper Works 628 South Hanford Seattle, WA 98134

RE: Project Water Test PO# M66807 - Results of testing requested by Gerry Thompson for material submitted on October 1, 2001.

FEDERAL TAX ID #(b) (6)

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Charlene Morrow, M.S. Yelena Aravkina, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

October 4, 2001

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on October 1, 2001 from your Water Test PO# M66807 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures ACU1004R.DOC